Federal Environmental Assessment Review Office
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Canadian Environmental Assessment Act
Comprehensive Study List Regulation

Summary of Comments from the 1992 Regional Workshops

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Canadian Environmental Assessment Act
Comprehensive Study List

Summary of Comments

Introduction

In January and February of 1992, FEARO held regional sessions across the country to solicit the opinion of Canadians on two regulations for the proposed Canadian Environmental Assessment Act. To focus discussions, draft regulations – an annotated Statutory and Regulatory Provisions Regulation and a Comprehensive Study List Regulation – were released prior to the Regional Sessions. Workbooks on both regulations were prepared to help interested Canadians make suggestions on the regulations. With respect to the Comprehensive Study List, comments were solicited on:

1. the criteria for including projects on the list;
2. the projects on the list, organized by subject matter; and
3. projects that should be added to the list.

Attendance at the regional sessions varied from region to region. Participants numbered approximately 32 in St John's, 42 in Halifax, 32 in Fredericton, 18 in Charlottetown, 21 in Montreal, 24 in Quebec City, 23 in Ottawa, 24 in Toronto, 29 in Winnipeg, 18 in Regina, 44 in Calgary, 28 in Edmonton, 34 in Yellowknife, 49 in Vancouver and 15 in Whitehorse. Each regional session contained a mix of stakeholders including industry, environmental groups, natives, federal and provincial government department employees and members of the legal and environmental consulting professions.

Interested individuals and organizations were also encouraged to submit written comments on the substance of the regulations. More than fifty written submissions were forwarded in response to that invitation. These written submissions came from a cross section of stakeholders some of whom attended the regional sessions.

A summary of the proceedings from the Regional Sessions is presented in this report. The information generated at the sessions is cross-referenced and consolidated to summarize the search printouts from the computer data base for the Statutory and Regulatory Provisions Regulation (SRPR).

The Regional Sessions

The Regional Sessions were designed to promote intensive discussion by those knowledgeable or interested in the Canadian Environmental Assessment Act. Two announcements were sent out prior to the sessions. Interested parties were asked to pre-register and were sent workbooks and related documentation prior to the session.

At each Regional Session, participants were divided into small groups structured to reflect the represented diversity of views and values. A facilitator was assigned to each group to help organize discussion and ensure consistency of process. A list of questions, based on the workbook, served to aid the discussion, but was not meant to be restrictive.

Participants at the Regional Sessions addressed both the Comprehensive Study List Regulation and the Statutory and Regulatory Provisions Regulation. After small group discussion on each regulation, participants convened in a plenary session to report the results of their deliberations.

Detailed notes were kept on participant comments made during the regional sessions. These comments were transcribed into templates under topic-specific headings. The comments from the written submission were also organized using the same format. The templates for all regional submissions and all written submissions were entered into a computer data base. Searches were conducted for each of the topic specific headings, as well as for general comments on the regulation, comments on the criteria and suggested additions.

In reviewing this document, readers should note that participants at the Regional Sessions were asked to highlight potential problem areas with the regulations and to note differences of opinion. However, it is noteworthy that while participants did underscore areas of concern with the regulations, the spirit of discussion was one of constructive suggestions.

Finally, while this report is an important indicator of attitudes and opinions among potential users of the Canadian Environmental Assessment Act, these opinions are not necessarily limited to the legislation or areas of federal jurisdiction. Moreover, lack of comments on a specific project does not necessarily mean there was agreement with it as written.

General Comments On The Comprehensive Studies List Regulation

Although significant comments were proposed for the Comprehensive Study List (CSL) at the regional sessions, few general comments were made about the CSL in the written submissions to FEARO. In general, it was suggested that it was difficult to assess the CSL without better understanding the other regulations. For example, the need was identified for the exclusion and the inclusion lists to be viewed in conjunction with the CSL. A number of individuals from across the country stated that there appeared to be a discrepancy between the application of the Act and the CSL. The regulation is limited

to new construction unless otherwise indicated while the Act applies to all stages of a project.

Some comments focused on the process by which the CSL was developed. Some thought that projects may have been included because of public concern rather than the specific criteria that provide the framework of the regulation. There also was generalized concern about the threshold levels included in many of the project descriptions. Many participants wanted to know the rational for establishing the thresholds. Furthermore, many individuals suggested the project descriptions were vague and there needed to be definitions of all relevant words such as "specific", "large scale" and "important".

The Components of the Environment that Underpin the Criteria

The Health and Safety Component

Individuals from across Canada pointed out that the health and safety component should not take priority over ecosystem integrity. It was suggested if ecosystem health and safety issues are addressed, we will have human health. Others thought the reference to human health and safety was too anthropocentric and should be deleted or at least the concept should be modified to include other organisms besides humans. However, it should be noted that there was disagreement over this issue. Some individuals felt that the priority for human health and safety was appropriate.

It was recommended that "human health" be defined. And a question arose about this component and the social well-being of aboriginal people who depend on the environment for subsistence harvesting and spiritual subsistence.

The Ecosystem Integrity Component

It was suggested that "ecosystem integrity" should be defined in this component. Some individuals noted that the component contained inconsistencies and complicated criteria for judgement. Ecosystem integrity was equated to ecosystem health and defined as the ecosystem's ability to maintain its organization and functions presumably without any help. It was further noted that human activities constantly rearrange ecosystem components.

A suggestion was made that the component be changed to include "man made or non-natural organisms" reflecting the concerns about biotechnology and the introduction of

engineered organisms into the environment. It also was suggested that the component be based on the idea of resistance of an ecosystem rather than the resilience as the present wording of the component suggests. Yet others recommended a new definition should include the value of the gene pool, wilderness and conservation of biodiversity.

The Land, Water and Air Components

It was suggested that the word "valued" be deleted or clarified in the first sentence of this component as it denotes arbitrary and artificial valuation of the environment. Who would judge what ecosystem is more valued than another? Another individual suggested that the word "will" in the sentence be changed to "may".

Listed below are the comments on the seven themes identified in the criteria section of the workbook as a common concern.

- All the comments on this theme suggested removal of the word "commercial". Participants suggested if certain species are critical for people's livelihood then they are already "important". On the other hand, there may be subsistence species that are not commercial but are important to native communities. It was suggested that the term "biodiversity" would be a suitable replacement.

- The comments on this theme expressed concern over the words "man's stewardship responsibilities". Most individuals though this phase should be deleted or clarified. For example, it was noted that rare and endangered species are not related to man's stewardship responsibilities are also of common concern. Two individuals stated that "man" should be changed to "human".

- Two comments on this theme questioned the appropriateness of including it as a component as it appeared to be an economic rather than an environmental factor.

- The theme of land use conflicts was recommended for deletion or clarification as it seemed too general.

- No comments were made on this theme.

- This theme stimulated discussion on whether or not it should refer to "ecologically significant" or "natural".

- No comments were made on this theme.

Cultural Features

Some individuals expressed a desire to have present-day features included in this theme. It was noted that features now could later develop historical significance. More specifically, it was proposed this theme cover the use of lands and resources for traditional purposes and educational values, and it should refer to threats to culture and lifestyle. Further, a recommendation was made to change the last sentence to "A project may affect the current use of lands and resources including traditional purposes by aboriginal persons".

Additions to the Components

It was suggested that a component be added to capture the social and economic features and include the following features:

- Community Livelihood
- Land Use Conflicts
- Recreation
- Sustainable Use of Resources

The Criteria

It was suggested that the words "regionally significant" should be added to all the criteria to allow for differences in regional sensitivities.

Comments on Criterion #1

Many individuals suggested the word "significant" needed a definition as it was unclear. There also was further debate regarding the need to quantify the meaning of the word "significant". It was also noted that the meaning of the word would change over time. It was felt that the word should relate to geographical location and cumulative effects.

"Virtual elimination" was suggested as a more descriptive modifier in this criterion. There also was a request for clarification of the word "emission".

The participants in one regional session suggested that the wording of this criterion should be changed to "significant releases of contaminated wastewater effluent, thermal

discharge or emissions (air contaminants, noise, ionizing radiation, electromagnetic radiation). The purpose of this change was to avoid catching clean well-treated effluent.

Comments on Criterion #2

While it was suggested that the word " low concentration needed a definition, the words "toxic and hazardous" attracted the most comment. Some thought these words were too important to leave undefined and a suggestion was made that a legal definition from other legislation could be used. At minimum, the definition should cover substances on the Canadian Environmental Protection Act priority substances list. Others considered that dose exposure and related information was needed for a substance to be considered under this criterion. It was suggested that this criterion incorrectly implies that the mere presence of a substance could cause concern. It was also suggested that the criterion should refer to toxic and persistent substance. Another individual felt that the words "even at low concentrations could be deleted as this was implied by the word "toxic".

Suggested changes to the wording of the criterion are:

1. Releases of effluents or emissions for which there is evidence that they are toxic or hazardous to the environment or to human health and safety even at low concentrations.

2. Releases of effluents or emissions that are known to be or are suspected of being toxic or hazardous to the environment or to human health and safety even at low concentrations.

It was suggested that Criteria #1 and #2 could be combined since "hazardous and toxic substances" would fit under Criterion #1. If the goals and objectives of the two criteria were intended to be different then the wording should reflect this more clearly.

Comments on Criterion #3

It was suggested that there be a definition of the words "significant quantities". The following changes were suggested for the wording of this criterion:

1. Transportation, storage, use, production or disposal of significant quantities of a substance that could threaten or have long term effects on the environment or human health and safety in the event of accidental release or malfunction.

2. Transportation, storage, use, movement, production or disposal of significant quantities of a substance that could threaten the environment or human health and safety in the event of an accidental release or malfunction.

There were questions as to how this criterion would apply to transportation of goods when new contracts are awarded, as well as to rail transport.

It was also suggested that this criterion only should apply when the probability of such accidents occurring is large enough to warrant an extensive investigation.

Comments on Criterion #4

It was noted that the words "large scale" was vague and needed definition.

Furthermore, it was suggested the criterion should specifically include replanting, road-building and residential development. One recommendation was that the word "forest" be deleted from the criterion while another recommended replacing it with the words "natural areas". There was a suggestion that the word "natural" in this criterion should be expanded to recognize the ecological value of human altered areas. Another recommendation was put forth to delete the criterion since it referred to projects that fell within provincial jurisdiction.

Comments on Criterion #5

There was confusion about the meaning of the words "productive capacity" in this criterion. Questions were raised if it referred to economic capacity or the capacity of the habitat to sustain wildlife and fisheries? A definition was also requested for the word "disruption". It was suggested that this criterion be changed to ensure that projects that intentionally introduce genetically engineered and exotic species into the environment will be subject to comprehensive study.

Recommendations made for changing the wording of the criterion were as follows;

1. Alteration, disruption or elimination of significant terrestrial and aquatic habitat for wildlife and fisheries.

2. Alteration, disruption or elimination of terrestrial and aquatic habitat for wildlife and fisheries.

3. Alteration, disruption or elimination of terrestrial and aquatic habitat for wild life, fisheries or threatened or rare and endangered species.

Comments on Criterion #6

Definitions were requested for the words "significantly large areas" and "natural landscape". It was suggested that the word "natural" in this criterion be expanded to include areas wholly or mainly expanded created by human activity which have since become the unique habitat for assemblages of organisms.

Changes suggested for the wording of this criteria are presented below:

1. The use of significantly large areas of natural landscape for agricultural, industrial, commercial institutional or residential purposes.

2. The development of significantly large areas of natural landscape for recreational, agricultural, industrial, commercial institutional or residential purposes.

3. The elimination, alteration or destruction of significantly large areas of natural landscape for agricultural, industrial, commercial institutional or residential purposes.

4. The development of land that contains rare sensitive or endangered species as well as the development of significantly large areas of natural landscape for agricultural, industrial, commercial institutional or residential purposes

Comments on Criterion #7

There were several comments on the word "development" in this criterion. Suggestions were made to replace the word with alteration, elimination, alteration or destruction, or use. There also was a question regarding the definition of the term "significantly large areas". Furthermore, it was noted that the criterion should depend on the type of agriculture land/use and the proposed project.

Comments on Criterion #8

There was a request for a definition of the term 'significantly large areas" and it was stated that the term was vague and in need of clarification. It was also suggested that the criterion be changed to consider the effects on the unique areas for aesthetic and/or ecological value and/or significant local importance (unrelated to size).

New wording suggested for the criterion would change it to read "disturbance of a significantly large area or long distance by the removal and/or disposal of subsurface materials (e.g., soil, peat, granular deposits, bedrock)."

Comments on Criterion #9

A question arose about the definition of the term"significantly large areas". Furthermore, the term was seen as vague and in need of clarification.

Comments on Criterion #10

This criterion raised questions about the meaning of the word "significant". It also was suggested that the word "natural" in this criterion be expanded to include areas wholly or mainly expanded created by human activity which have since become the unique habitat for assemblages of organisms.

Comments on Criterion #11

There was concern expressed over the definition of the word "important" and the lack of scale or magnitude in this criterion. Some suggested the criterion was too broad and needed to be more fully defined while others argued that the word "significant" should be included in the criterion. Suggested changes for the wording of Criterion #11 were as follows:

1. Obstruction to the passage of aquatic, terrestrial and aerial wildlife in an important freshwater or marine waterbody.

2. Obstruction to the passage of aquatic organisms in an important freshwater or marine waterbody or of land and air migrations of wildlife.

3. Obstruction to the passage of aquatic and/or terrestrial wildlife in an important freshwater or marine waterbody.

Comments on Criterion #12

The major concern regarding for this criterion was the definition of the word "significant" which was seen to be vague and requiring clarification. Many participants suggested significance should relate to specific geographic locations and cumulative effects. There was also discussion about the need for quantifying significant impacts.

A further suggestion was made to change the wording to "significant changes in water temperature, water levels, water depths in an important freshwater or marine waterbody".

Comments on Criterion #13

Questions arose as to what a "significant quality " means. New wordings for the criterion were suggested as follows:

1. Affectation or impairment of a regionally significant quantity of ground water.

2. Removal of significant quality and quantity of ground water.

3. Removal of a regionally significant quantity of ground water, alteration of ground water system or disturbance of a recharge area.

4. The removal of a regionally significant quantity of ground water and surface water.

Suggested Additions to the Criteria

Some individuals suggested additions to the criteria for the CSL.

1. Alteration or development of our ecosystem that impacts on the well-being of organisms that rely on or are dependant on that ecosystem should be on the comprehensive studies list.

2. Disturbance of a significantly large area or long distance by a linear development.

3. Energy production which impacts on areas of federal jurisdiction.

4. Significant disturbances of social and cultural values to one or more communities and their repercussions on activities based on those values.

In general, individuals suggested that the criteria should cover socio-economic environment, public concern, international resources, transboundary provisions, cumulative effects, protection of treaty Indians and the interests of natives, water temperature and surface water, and the human quality of life and jobs. Finally, an additional criterion was suggested to deal directly with biotechnology.

It is noteworthy that discrepancies were highlighted between specific criteria and the projects on the list and the components and the specific criteria. For example, Criterion #4 mentions forestry yet no forestry projects are on the list and the components for the criteria mention cultural features yet none of the specific criteria deals with this. It was also noted in general that the projects were vaguely described with limits that were not self evident and arbitrary. There was a clear message to emphasize environmental impacts rather than output sizes.

1. Comments on National Parks Projects

The general comments on the park project descriptions noted that parks should be protected but also stated that parks should not have any particular special status that would trigger an assessment under the Act or in the CSL.

Many individuals recommended that new parks should be included for comprehensive study. Furthermore, other projects within protected areas such as International Biosphere Reserve sites, wildlife sanctuaries and historic sites should be included in the CSL. Suggestions were proposed that an environmentally disruptive activity outside a Park border that occurs on natural processes occurring outside the park also should be subject to a comprehensive study.

Comments on Parks (a)

Some individuals were satisfied with the project description as drafted while others considered it to be too broad, potentially capturing environmentally insignificant projects.

Questions arose about the meaning of the words "threaten", "urgently required for a park operation" and "not in conformance with a management plan". The later term gave rise to a further question: could a project could be in conformance with a park management plan but not with park policy.

Several recommendations were made to narrow the exception in the project description to avoid unfavourable long term cumulative effects. It was noted that this should be accomplished by wording that would still avoid trivial studies.

Several suggestions also were made for changing the wording of this project description. One individual suggested it should read "A project in a National Park that conflicts with the values embodied in or reflected in the National Parks system .....". Others suggested that the exception should be narrowed to where it is "urgently" required to alleviate conditions which threaten natural resources, public health, safety or is urgently required for a park's operation. A similar narrowing of the project description exception could occur by adding the words "pose an immediate threat to" before the words "natural resources". Finally, it was suggested that the project description should refer to new projects within a park rather than renewal of licences for existing facilities.

Comments on Parks (b)

Several comments were voiced in favour of this project description. One question was raised regarding modification of a park boundary not being a project for the purposes of the Act.

A question arose about the meaning of the words "affected". It should also be made clear that the meaning of the word "modification" included both enlargement and reduction.

There was considerable discussion about the 10% threshold level in this project description. Many individuals thought 10% was too high and should be reduced or eliminated so that any boundary modification would be subject to a comprehensive study. The reason for this concern was that small boundary changes could gradually erode a park to the point of elimination. Other suggestions included breaking the project description down into a list of sensitive areas where any changes in boundary areas would be subject to a comprehensive study or basing the project description on the nature of the change resulting from the modification rather than the percentage of area effected. Another suggestion was made to require comprehensive study for modification of a park boundary affecting 10% or 300 ha or more of the total size of the park.

2. Comments on Water Management Projects

In general, it was noted that the projects included under water management are extremely large. It was strongly suggested by many participants that cumulative effects of many small projects should be considered. Furthermore, it was felt that the list of water management projects do not address the range of water management issues in Canada today. The thresholds included in the project description appear arbitrary and without rational.

The wording of the project descriptions was noted as being vague.

Suggested additions to the CSL were as follows: the alteration of existing wetlands from salt water to freshwater and vice versa; the destruction of wetlands; projects that cause wetland infilling or destruction; and projects that affect fish passage and groundwater flows and quantities and small streams.

Comments on Water Management (a)

Many individuals thought that the threshold level in this project description was too high and was not an indicator of possible impacts. Rather, it was noted the focus should be on the significance of the impacts themselves. The practical consequences of leaving the threshold in this project description also was pointed out by some individuals. For example, under the drafted project description small rivers would be exempt. Such rivers could have significant socio-economic and cultural significance to a community. Moreover, the modification of many small rivers could have substantial impact on a watershed or drainage basin.

Some individuals found the project description to be fraught with ambiguity and in need of clarification. For example, it appears that long-term flows of less than 40% historical averages can be made to a major river with an average flow rate larger than 100 cu.m. per second and still not be subject to a comprehensive study. And, long-term alterations averaging up to 100% of historical averages (during any month of the year) can be made to a small river with an average flow of less than 100 cu.m. per second.

There were questions as to when and where threshold measurements would be taken. Would the 40% of historical averages be taken before any work had been done on the river or before the particular project that will receive comprehensive study? Is the 100 cu.m. measurement taken at the headwaters or at the site of the project? Some suggested that the 40% value should be taken from reliable flow rather than historic flow.

There was disagreement with the words "long-term flow" in the project description. It was noted that just because a modification is long term, it does not necessarily have a negative environmental effect. The scale of the project, the nature of the alteration and the potential effects on ecosystems are more valid considerations. The project description should also refer to river modifications rather than a "permanent dam diversion or river modification". This would extend the requirement for comprehensive studies to temporary water management projects that may have significant environmental effects.

It was felt that it would be easier to exempt particular projects such as salmon enhancement rather than exempting projects by adjusting the flow rate criteria. There was concern that Canada's rivers are biologically and environmentally diverse and application of a criterion of river size is inappropriate in many areas. Each region's rivers should be treated on a case by case basis.

Comments on Water Management (b)

There was approval of the inclusion of project description (b) on the CSL although one individual suggested they fall under provincial jurisdiction. It was also recommended that the 500 ha. threshold in the project description be deleted. Site specific provisions could be added to screen out trivial projects. Other suggestions included adding both new and existing projects and the "creation and alteration" of an area should be specified in the project description.

Comments On Water Management (c)

There was approval of including the Water Management (c) on the CSL. There was concern about the threshold levels contained in the project description. Some individuals thought that the need for a comprehensive study should be based on site specific provisions. Others recommended the removal of any threshold and reference to significant effects. They suggested any project that modifies a shoreline in such a way that environmental disruption occurs should be subject to a comprehensive study.

Some suggestions were made that the shoreline modification should be increased from 30 to 300 km. before a comprehensive study is required under this project description. Furthermore, the project description should apply only to permanent modifications.

There were numerous questions about the wording of the project description. What is a "natural shoreline"? What is meant by "modifies" and "artificial"? It was felt that there

was a need to replace the word "continuous" with "generally continuous". Also, it was suggested the word "modify" should be changed to "affect".

Comments on Water Management (d)

It was noted that size is not necessarily a good indicator of environmental impact and the emphasis in the project description should be on "significance" of environmental impacts in determining if a project should go to comprehensive study. For example, it was suggested a series of small wetlands should be considered in total. The threshold of 300 ha. was considered to be too high but one individual thought it should be increased to 500 ha. to avoid discouragement of establishment of small nature reserves and lakes

Questions also arose about the word "artificial". Does it apply to wetlands? What is it's definition?

3. Comments on Oil and Gas

In general, it was felt that the thresholds in the project description needed to be reviewed as they do not address the potential environmental problems. It was noted threshold should relate to the impacts not just the size of the project. Comments noted there appeared to be no rationale for the thresholds given for these projects as the impact of a spill varies depending on the location of the spill. It was also suggested that exploration as well as development needs to be included here. One individual felt that many projects should be excluded from comprehensive studies if plant emissions were so low as to not cause environmental effects. This remark pertained to CO2, CH4, NOX, and VOLs.

Additions recommended for the CSL under this heading were petrochemicals and co generation facilities, decommissioning, changes to internal complexity of facilities, offshore petroleum proposals, transmission/pipeline projects by capacity or length, conventional oil projects, underwater pipelines, pipelines and transmission lines, and energy infrastructure.

Comments on Oil and Gas (a)

Some individuals approved of Oil and Gas (a) being on the CSL and some suggested that exploration be added to the project description. One suggestion was made to include land-bases exploration here as well. However, other comments suggested the project

should be excluded as there is already environmental scrutiny (for example under the Newfoundland Atlantic Accord Implementation Act).

A question arose if "production development" included exploration. The word "production" caused concern that development of artificial islands for airports, sewage treatment and other facilities associated with offshore production will be missed.

It was recommended that the word "offshore" be changed to a term such as "in water". as the former word connotates an area beyond a province.

Comments on Oil and Gas (b) and (c)

The comments for these projects were similar. Some individuals approved of the inclusion of these projects on the CSL. Others suggested these were lowered by provincial reviews. Yet others recommended that the threshold in the project description should be reduced to 1,000 - 2,000 cubic meters per day.

Comments on Oil and Gas (d)

Some individuals agreed that this project should be included on the CSL. Others suggested this was covered by provincial reviews. A question arose as to why this project description had no threshold.

Several individuals identified the need to define what a commercial scale facility was. A question also arose as to what the difference was between burning coal and other fuels such as oil feed.

Comments on Oil and Gas (e)

The threshold level included in this project description was debated. Some recommended that the threshold be raised to 5,000 tonnes per day while others recommended that it be lowered to 100 tonnes per day. Several noted that the threshold seemed large.

Some recommended that cumulative effects for this project would need study. At the same time, questions were raised why sour gas facilities would be on the CSL as they only occur in Alberta and the ERCB already does an in-depth review of these projects.

Comments on Oil and Gas (f)

There tended not to be a great deal of discussion on this project. However, it was recommended that the threshold in this project description threshold seemed high and precautions were needed for such projects.

Comments on Oil and Gas (g) and (h)

It was recommended that projects such as these should receive close scrutiny. One individual recommended that the thresholds be reduced to 10,000 cubic meters.

4. Comments on Minerals and Mineral Processing Projects

A general question arose about how threshold levels could be calculated for mines that produce several different kinds of ores. Again, it was stated that the rational for the threshold levels was not clear.

Comments on Mines and Mineral Processing (a)

Some individuals thought that this project was appropriate for the CSL. One individual raised the question was raised if this was applicable to facilities where the mine and the mill are on separate or the same properties. Others stated that these projects should be subject to provincial scrutiny only.

It was pointed out that size is an imprecise measure of environmental impacts, and the focus should be on the significance of the impacts. It was recommended that the thresholds should not be lowered. On the other hand, it was twice recommended that the threshold be increased to 20,000 tonnes per day. One individual recommended that the tonnes per day figure in this project description should be relevant to the types of minerals involved. It was also noted that modern mills no longer have capacities of 10,000 tonnes per day and that this threshold excludes the mineral industry from being subject to comprehensive study.

The wording of the project description should be changed to refer to mining alone rather than specifying "metal mining" as this would exclude gold mines. Another comment suggested thought that the project description should distinguish between open pit and underground mines.

Other mines and mineral processing that were recommended as being added to the list were small scale high impact mines. Gold mines in particular were identified for inclusion on the CSL along with coal mines and other industrial minerals.

Comments on Mineral and Mineral Processing (b)

Several comments suggested that this project be deleted from the CSL. It was noted that asbestos mining, processing and packaging is very well understood and under control. Furthermore, it was recommended that the legislation should not identify winners and losers by naming specific commodities such as asbestos. On the other hand, comments noted all proposed asbestos mines should have a mandatory environmental impact statement.

5. Comments on Nuclear and Related Facilities Projects

As a general comment, it was suggested it would be useful to seek the advice of nuclear specialists on the adequacies of these projects for inclusion on the CSL.

Some suggestions for projects to be added to the CSL included nuclear weapon testing, nuclear submarines and new defense technologies, test mines, long term containment of nuclear waste, decommissioning plans and large scale transportation programs for radioactive waste, triturated heavy water or tritium. There were concerns that low and intermediate wastes be included especially in storage, processing or disposal. Decommissioning, closure of disposal facilities and expansion of existing facilities were also recommended for inclusion on the CSL. One individual noted that such things as disposal of waste did not appear to be covered outside of a facility. It should be ensured that large gaps in the CSL do not occur.

Comments on Nuclear and Related Facilities (a)

There was concern that many of the projects under this heading had no threshold levels associated with them. Some commenters believed this indicated that public concern was the deciding criterion for placing the projects on the list. The question was raised as to if this was appropriate.

Another general comment was directed at many of the projects included under Nuclear and Related Facilities. It was noted that the limit for new facilities in many projects was not justified in view of the definition of project as provided in the Act.

However, others felt that construction work on a nuclear facility should not be subject to a comprehensive study. Furthermore, reference should be specifically to mine tailings area to ensure that this section is not applied to decommissioning of mine tailings piles. The AECB requires conceptual decommissioning plans at the time a license is applied for. This should exclude the need for a comprehensive study under Bill C-13. The AECB plans to reassess plans before issuing approval for decommissioning. The wording in Project A under this heading is not sufficiently clear to prevent reassessment.

Comments on Nuclear and Related Facilities (a) (i)

Some individuals felt that project (a) (i) was appropriate for inclusion on the CSL. Others disagreed and stated that it should be removed. Another thought that the provision was not clear. Others argued an exception given for uranium mines is not consistent with other mining facilities included on the CSL.

Some changes to the wording of the project description were suggested. The word "milling" and the term "that has already been subjected to a comprehensive environmental study in which those additional ore bodies were taken into consideration" should be added on to (a) (i).

Some individuals thought that threshold levels should be added to (a) (i). For example, it was suggested that the comprehensive study should be required if expansion exceeds 50%.

It was suggested that test mines should be included in this project and it should not exempt significant expansions. The latter should be made more explicit in the CSL.

Comments on Nuclear and Related Facilities (a) (ii)

Opinion was split on the merits of having (a) (ii) on the CSL. Some recommended deleting it while others thought it should be retained. One comment suggested if the exception applied in this project it should be extended to all mining projects on the CSL. It was also pointed out that there should be a threshold included in this project description.

One recommendation was put forth to include feasibility studies or test mines as requiring comprehensive study since the disruption of radioactive ores can establish pathways for radioactive materials that could have harmful effects.

Comments on Nuclear and Related (b)

There were several suggestions for changing the threshold limit in this project description. Some thought that the threshold should be deleted and a comprehensive study should be carried out for all new facilities regardless of volume. Another thought the threshold should be reduced to 10 megagrams per year.

Comments on Nuclear and Related Facilities (c)

Several comments were directed at slowpoke reactors. It was pointed out that these reactors are often sited in populated areas and have limited containment. Therefore, they should be subject to comprehensive study. Another comment was made that both commercial and non-commercial reactors should be give comprehensive study. An opposing viewpoint held that slowpoke research reactors were used safely at universities for years and should be excluded. Others stressed it was important to catch the big reactors while excluding the little ones.

Some individuals were satisfied with the project description but others thought that the need for comprehensive study should be based on the fuel used not the power rating. Another recommended that the threshold should be 30 electrical MV rather than 30 thermal MV. Several recommended eliminating the 30 MV threshold so all reactors would be subject to comprehensive study.

It was also suggested that this project description also include decommissioning plans.

New wording was proposed for the projects to be included on the CSL under this heading. It should read "(i) any nuclear reactor to be used for commercial power production (ii) any research (of a new design) to be built at a site which is not already a licensed nuclear site".

Comments on Nuclear and Related Facilities (d)

There were few comments on this project. However, one thought this project description was fine but another wanted reassurance that safety studies would be done for all new sites.

Comments on Nuclear and Related Facilities (e)

Again, there were limited comments on this project. One thought the project description was fine but recommended reducing the threshold level to 10 MG/year. Another stated that if processing includes storage then all new facilities should be subject to comprehensive study. Further recommendations were made to delete the threshold limit as even single irradiated fuel elements could have an impact. A suggestion also was made to include decommissioning plans as part of this project.

Comments on Nuclear and Related Facilities (f)

Some comments suggested the project description was fine but the threshold limit was too high. Others questioned the limit noting that there already are controls for small quantities. It was also noted that the provision for no restriction on design inventory is appropriate.

It was suggested the wording of the project description should be changed by substituting "location" for "site". This was suggested in light of the fact that sometimes facilities are at different sites but are located in one nuclear complex.

Recommended additions were decommissioning plans, expansion of waste storage areas beyond the capacity of the original license and other irradiated materials such as medical waste.

Comments on Nuclear and Related Facilities (g)

Some commented that the project description was fine while others expressed concern that it could be interpreted as requiring an assessment of such a waste disposal facility separate from the assessment of the rest of the uranium mining facility. Several individuals identified a need to define the words "permanent disposal".

It was recommended that a threshold such as 50 year containment facility be added to this project description. Several recommendations were made to change the wording of this project description. It was suggested that it should refer to "temporary" and permanent disposal. The words "disposal" and "permanent" were recommended for deletion. The single word "storage" would suffice. Furthermore, it was suggested the word "permanent could be replaced with "extended or temporary" since there is no such thing as permanent disposal.

It also was recommended that this project include underground burial as well.

Comments on Nuclear Decommissioning (a)

Comments suggested that this project should be on the CSL. Others noted the need for full public information and participation. It was further suggested that milling be included it this project and the subordinate clause in the preamble be deleted.

One individual called for clarification as to whether this is designed to catch projects that have gone through the process prior to the Act coming into law. One individual felt that this project should be subject to provincial review only.

Comments on Nuclear Decommissioning (b)

Several individuals thought that the threshold limit in this project description was inappropriate while others suggested that it be reduced to 10 megagrams per year.

There was approval that this project be give comprehensive study with full public information and participation. Another recommendation was made to limit review of such projects to the provincial government.

Comments on Decommissioning (c)

The question arose as to how including this project on the CSL would fit into the overall energy strategy. There was one recommendation to delete this project from the CSL.

Several recommended that the 30 megawatt threshold be deleted. In particular, it was noted that thresholds should not be set for this project given that decommissioning technology is not yet articulated. One individual suggested that the threshold be set at 30 electrical rather than 30 thermal.

There was general approval that this project be give comprehensive study with full public information and participation. However, one recommendation was made to limit review of such projects to the provincial government.

Comments on Decommissioning (d)

It was recommended that the threshold be reduced to 10 megagrams per year. It was also stated that the input design is irrelevant and should be deleted. Others suggested the project description should include low and intermediate level waste.

There was general approval that this project be give comprehensive study with full public information and participation. However, one recommendation was made to limit review of such projects to the provincial government.

6. Comments on Industrial Facilities Projects

Comments were directed at the unfairness of singling out specific industries under this heading for the CSL. In particular, it was noted the chemical industry was conspicuous in it's absence. It was pointed out that there should be a clear process for including or excluding projects and that process should be indicated.

Some comments suggested that the projects on the list did not coincide with the criteria and that the criteria for inclusion should be applied to all industries. Moreover, it was suggested that the scope of this heading needs to be expanded to ensure it encompasses all sectors that have a negative effect on the environment. For example, all expansions and retrofitting of industrial facilities should be included here.

Other industries proposed for inclusion on the CSL were petro chemical plants, fertilizer plants, food processing facilities and wood treatment plants.

It was suggested as well that the project descriptions should include expansion and decommissioning. One individual agreed that expansion should be covered but not upgrading.

The word "greenfield" should be deleted from all projects descriptions as it is unclear as to what this means.

Comments on Industrial (a) and (b)

Some thought that these projects would be reviewed under provincial regulations and should be subject to provincial review alone. Others approved of including the project's description on the CSL. However, it was stated that there was no justification for distinguishing between greenfield installations and the expansion or rebuilding of an

existing plant. Many stated a comprehensive study review should not just be restricted to greenfield plants.

Comments on Industrial (c)

Some individuals agreed with including this project description on the CSL. Others had question about the definition of the words "smelter or refinery". Some thought that the project should refer to a "greenfield base-metal smelter".

There was concern that the wording of the project description was very expansive and would catch insignificant projects. Three such examples are, small facilities in gold mines that extract/refine gold from precipitates form leaching operations, small autoclaves for roasting gold ores and small byproduct operations processing recyclables or minor metals such as indium or cobalt.

It was suggested that this project description should include a threshold to avoid catching small operations. A threshold could be provided in terms of a 1000 tonnage/day input or 1000 tonnes/day metal output.

7. Comments on Defense Projects

A general comment was made that this heading on the CSL should be expanded to include all federal facilities (e.g., prisons).

Several individuals stated that low level flights and air space management should be included under the heading of defense projects. Other suggested additions were the passage of nuclear submarines and weapons development and testing including biological and chemical weapons.

Comments on Defense (a)

Many individuals expressed a desire to have military projects subject to comprehensive study and were in favour of this project description. It was suggested that a threshold limit for comprehensive study could be included as the number of personnel at the base or station. A further recommendation was made to include military base change or expansion in the CSL as well.

Comments on Defense (b)

While there was agreement to include this project in the CSL, some individuals had concerns about the threshold level of 100 square kilometres. It was recommended that it be deleted or reduced noting that the testing of ammunition containing toxic materials could occur in much smaller areas. Suggestions were also made to include decommissioning and temporary training or testing areas here as well. One individual thought the project should be subject to comprehensive study only if the effects of equipment testing are long term.

The following changes to wording were suggested:

1. The use of land, air space and water for the purpose of military manoeuvres, equipment testing including ammunition.

2. All testing of new equipment/technology for military purposes and all foreign testing programs in Canadian soils/air/water.

3. The development of an area of more than 100 square kilometres for military training or the testing of equipment including ammunition. Development in this project description should be defined to include areas in which there may be environmental impacts but not necessarily permanent structures.

8. Comments on Marine Transportation Projects

There was general agreement with the project description. One comment suggested that marine transportation projects fell within provincial jurisdiction. Another stated that it was inadequate as construction of a navigable waterway causes harmful effects.

Questions arose about the definition of the words "channel dredging" and "navigable waterway". A questions was raised if the project description covers placer mining situations. Others needed clarification as to if it referred to new channel dredging and/or dick construction. It was assumed in one instance that the project description covers freshwater as well as marine systems.

Several suggestions were made to include a threshold in this project description to avoid capturing minor projects. A threshold could be set out in terms of vessel size (e.g., a 100 tonne displacement vessel), average annual flows or volumes of dredged material. Otherwise, the word "significant" could be used to avoid assessing minor dredging

projects. One individual noted that it was important to distinguish between new and reconstruction or maintenance projects for the purposes of the CSL. It was suggested that new facilities, ship transportation, restoration of waterways and channels never used for transportation before be included on the CSL. New marine transport facilities of LNG or oil through important or critical areas should be included as well.

9. Comments on Rail Transportation Projects

It was suggested that the projects listed under this heading should be referred to as land transportation. This reflects a general opinion that the other types of linear transportation development should be subject to comprehensive study. In particular there should be no exemption for highway development, power lines, airports and low level flights. Linear transportation developments in both terrestrial and aquatic environments should be included in the CSL. Comprehensive study should be done for lines in critical environments and should not be limited to new construction. Construction modification dismantling and the secondary effects through changes in the use of other forms of transportation should also be considered for comprehensive study. Finally, it was suggested that federally-operated rail services should be given a comprehensive study.

Comments on Rail Transportation (a)

There were numerous comments on the threshold levels in the project description. One hundred kilometres may not be an appropriate length for triggering a comprehensive study, especially if built in a populated area, across high-quality agricultural land or a sensitive environment. Comments stated that any rail development should be subject to a comprehensive study, regardless of length if it has an impact on an ecologically sensitive area as defined by acceptable criteria. Many individuals felt that the threshold was too long and should be reduced, perhaps to 50 kilometres. However, other opinions were expressed that the limit should not be reduced.

Comments on Rail Transportation (b)

Of the two comments on the project description, one individual agreed with it while the other questioned the need for a limit of 150 kilometres per hour.

10. Comments on Waste Management Projects

There was a great deal of concern about the wording in this project description. Questions arose about the definition of the words " waste", "hazardous waste", "facility" and "permanent". With such general wording the project description could catch anything from waste treatment plants to a storage cabinet in a university. Numerous comments also expressed concern about the lack of scale in the project description. One individual noted that without appropriate scale included, it would catch such things as hospital, medical centres and undertakers short term storage of waste.

Numerous individuals felt that the project description should include temporary waste treatment facilities. This could be accomplished by removing the word "permanent". One suggestion was to include temporary facilities if they operate more than one year. Another suggested that the project description be broken down into different sections for different wastes with different thresholds.

It was further suggested that major general disposal systems such as sewage treatment for large centres should be subject to comprehensive study under the CSL. Other items to be covered in the CSL were sewage discharge, solid waste management projects such as municipal landfills, expansion of waste storage beyond the capacity of the original license, ocean dumping, nuclear waste and some non hazardous wastes. There was concern that radioactive wastes other than those listed in the current draft of the CSL should be included. This would cover low medium level rad waste and medical isotopes. The CSL should also include projects involving the import and export of waste above a certain threshold level as well as transboundary movement of waste. It was suggested by one individual that biomedical wastes should be deleted from this project description.

A suggestion for changing the project description was as follows: "A dedicated central facility for the storage, treatment incineration or disposal of regional hazardous wastes (as defined in the Canadian Environmental Protection Act) with an annual throughput of _____ tons". The throughput tonnage should be determined by consultations with experts.

General Additions

It was suggested that fisheries be established as a new heading be established for the CSL. Several comments proposed that biotechnology projects should be subject to comprehensive study. In particular, these comments were directed at the field tests of transgenic organisms as well as biotechnology projects and facilities for research that pose a chance for release.